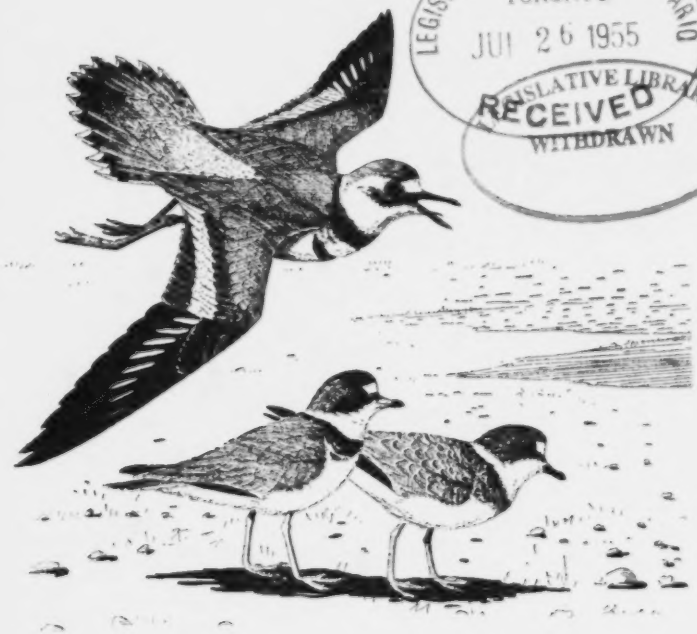
BRITISH COLUMBIA PROVINCIAL MUSEUM
DEPARTMENT OF EDUCATION

HANDBOOK No. 8

LEGISLATIVE LIBRARY OF ONTARIO
TORONTO
JUL 26 1955
LEGISLATIVE LIBRARY
RECEIVED
WITHDRAWN



THE BIRDS
OF BRITISH COLUMBIA
(3) The Shorebirds

Text by C. J. Guiguet
Illustrations by Frank L. Beebe

VICTORIA, B.C. FEBRUARY, 1955

104-03898/

BRITISH COLUMBIA PROVINCIAL MUSEUM
DEPARTMENT OF EDUCATION

HANDBOOK No. 8

THE BIRDS
OF BRITISH COLUMBIA
(3) The Shorebirds

Text by C. J. Guiguet
Illustrations by Frank L. Beebe

VICTORIA, B.C.
Printed by Don McDiarmid, Printer to the Queen's Most Excellent Majesty
1955

FOREWORD

This series of illustrated handbooks (including Handbook No. 6 already published) is being produced in response to a long-standing public demand for publications dealing specifically with British Columbia birds. It is hoped that the series, which is written in non-technical terms for the lay reader, will fulfil the needs of most bird-watchers, and will stimulate more people to become actively interested in British Columbia's wealth of natural history. Pending publication in booklet form, some of these articles have appeared as a weekly feature in the Victoria Daily Colonist. In time, illustrated accounts of all the birds known to occur in British Columbia will be available in this handbook series.

G. CLIFFORD CARL.

ACKNOWLEDGMENT

We are indebted to Mr. Seth R. Halton, publisher of the Victoria Daily Colonist, for the use of certain of the plates used as illustrations and to members of the Provincial Museum staff who co-operated wholeheartedly in the preparation of this handbook.

C. J. G.

F. L. B.

TABLE OF CONTENTS

The Shorebirds

	Page
Introduction	7
Black Oyster Catcher	8
Killdeer and Semipalmated Plovers	9
Black-bellied and Golden Plovers	11
Surf Bird	14
Black and Ruddy Turnstones	15
Wilson Snipe	17
Hudsonian and Long-billed Curlews	19
Upland Plover (Bartramian Sandpiper)	22
Spotted, Solitary, and Stilt Sandpipers	23
Wandering Tattler	27
Greater and Lesser Yellow-legs	29
Dowitcher and Knot	30
Aleutian Sandpiper	33
White-rumped and Sharp-tailed Sandpipers	35
Sanderling and Pectoral Sandpipers	37
Red-backed and Baird Sandpipers	39
"Peeps"—Western, Least, and Semipalmated Sandpipers	41
Buff-breasted Sandpiper	44
Marbled and Hudsonian Godwits	46
Avocet and Willet	47
Wilson Phalarope	50
Red and Northern Phalaropes	52
References	54

The Shorebirds

INTRODUCTION

The five families of birds that form the group loosely termed "shorebirds" are treated in this handbook. Since the characteristics of each family may be of some use to the reader, they are listed here (after Taverner, 1934).

Oyster Catchers.—Large shorebirds more heavily built than is usual in the group; bill stout and horny, extraordinarily flattened vertically at the tip. There are two species in Canada—one restricted to the east coast and the other to the west.

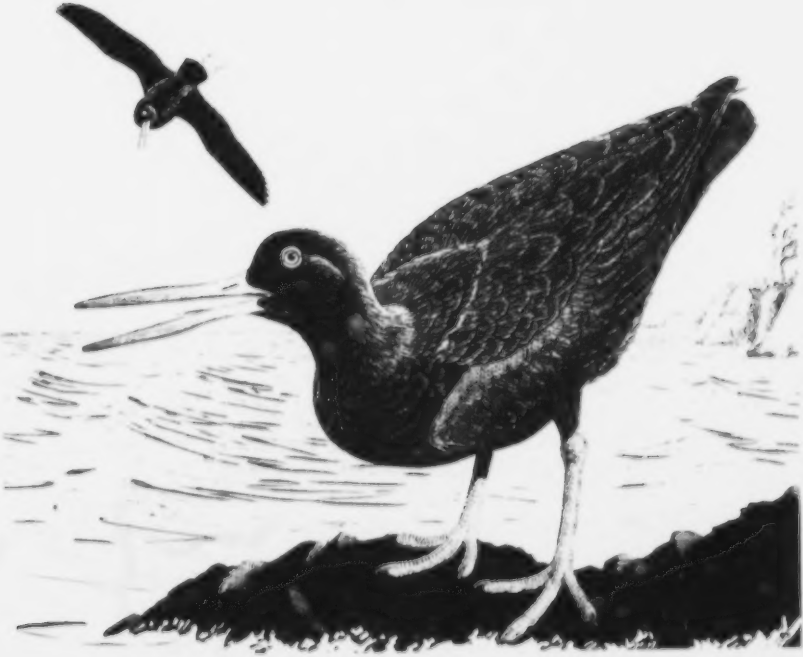
Plovers.—The plovers are rather more stoutly built than the snipe-like birds. Their bills are shorter, soft at the base, but end in a hard, horny tip. Hind toe lacking in all species except the black-bellied, in which it is very small and almost rudimentary.

Sandpipers.—Snipe-like, small to medium-sized shorebirds, the curlew being the largest species. Feet never entirely webbed nor toes furnished with web-flaps or web-margins. Some species have small webs between the bases of the toes, giving rise to the term "semipalmated" or half-webbed. All but one species, the sanderling, have four toes. The bills are long, slender, and tapering, usually straight, but some are down-curved or slightly up-curved; rather flexible and usually slightly enlarged and sensitive at the tip.

Avocets and Stilts.—Among the largest of the shorebirds and recognizable by their strikingly contrasted colours and great length of leg and bill. Only one species, the avocet, occurs in Canada.

Phalaropes.—Small birds about 8 inches long, wader-like in form but with plumage dense and gull-like. Toes bordered with web-lobes or edgings; tarsi flattened. Live largely on the water rather than on the shores.

The sequence of species in this handbook follows that as given in Munro and Cowan (1947) as closely as possible. However,



Black oyster catcher.

there is considerable divergence due to the grouping of more than one species in some of the illustrations. The text is arranged to conform with the illustrations.

BLACK OYSTER CATCHER

The black oyster catcher is a large chunky shorebird, slightly larger than a pigeon. It has dull black plumage, a long, bright-red beak flattened vertically at the tip, a crimson ring surrounding a bright-yellow eye, and pale pinkish-coloured legs and feet. These birds frequent the rocky sea-shores from Alaska to California, and are migratory to a certain extent, although many birds are present throughout the range during both summer and winter months.

Oyster catchers feed upon small mussels, which they open by inserting the flattened bill and severing the adductor muscle, but, like other shorebirds, a large part of their diet is made up of small marine crustaceans, worms, and other organisms which frequent the shore-lines. We have no records of them "catching" oysters.

Species of oyster catchers on the Atlantic coast, Europe, and Southern California differ from our birds mainly in having a great amount of white on the under-parts. In general structure, however, they resemble the birds here, and people familiar with the oyster catcher anywhere will have little difficulty in associating them with our dusky western species.

Black oyster catchers nest on the rocky islets all along the British Columbia coast from the south end of Vancouver Island north to Alaska. The nests are situated on high gravel beaches, if such be present, or upon rocky promontories and are easily identified by the small stones and chips of mollusc shells collected by the birds and upon which the eggs are laid. The eggs are quite large and usually number three to a clutch. They are spotted with dull black over a greyish background and are difficult to see despite the exposed nature of the nesting-sites. Look for them in the month of June, when the general location of the nest or presence of young is loudly advertised by the very vociferous adults.

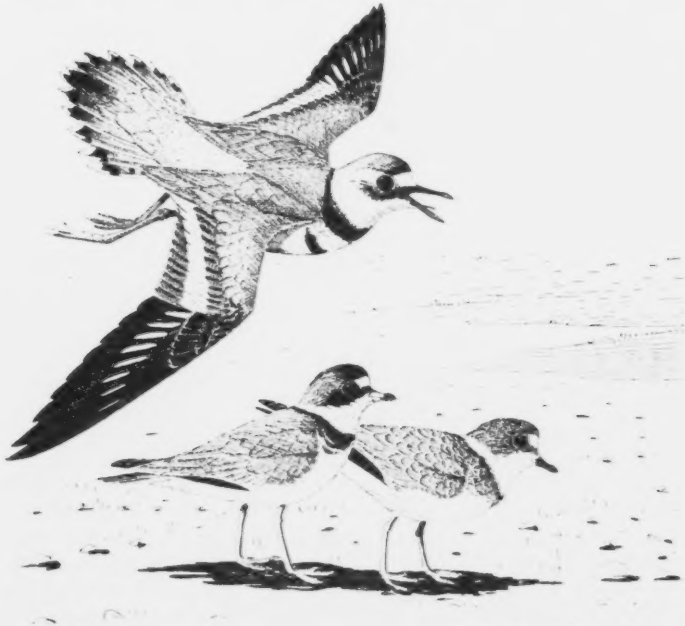
In the winter-time, numbers of birds gather along the southern coast, and flocks numbering fifty to seventy individuals are not uncommon around the south end of Vancouver Island. The black oyster catcher is a coastal bird; it does not occur in the interior.

KILLDEER AND SEMIPALMATED PLOVERS

The bird depicted here in flight is the killdeer plover, one of the most colourful and common of our shorebirds. It is resident on the lower mainland coast the year round, summering throughout the remainder of the province where suitable habitat occurs. Killdeers are versatile birds, equally at home along the sandy seabeaches, on the margins of fresh-water sloughs, in meadows, dry uplands, or in cultivated fields.

Strongly marked with two black bands on a snowy neck and breast, it also flashes a reddish-coloured rump and tail when in

flight. Its lilting "kill-dee, kill-dee" cry can be heard at great distances and is so distinctive that even the tyro can identify the species by sound, for, indeed, this bird literally shouts its name as it flies along, or stands "hiccupping" on the ground.



Killdeer plover. Semipalmated plover.

The killdeer nests in the open, most often where little cover occurs. The eggs are deposited on the ground, usually in a shallow depression around and in which small pebbles, stems, or bits of shell have been placed; occasionally the nest is elaborately lined with grass or other suitable material. The young are precocial, leaving the nest to forage with the parents almost as soon as they dry off. In this state they are most difficult to observe, being very agile and adept at hiding.

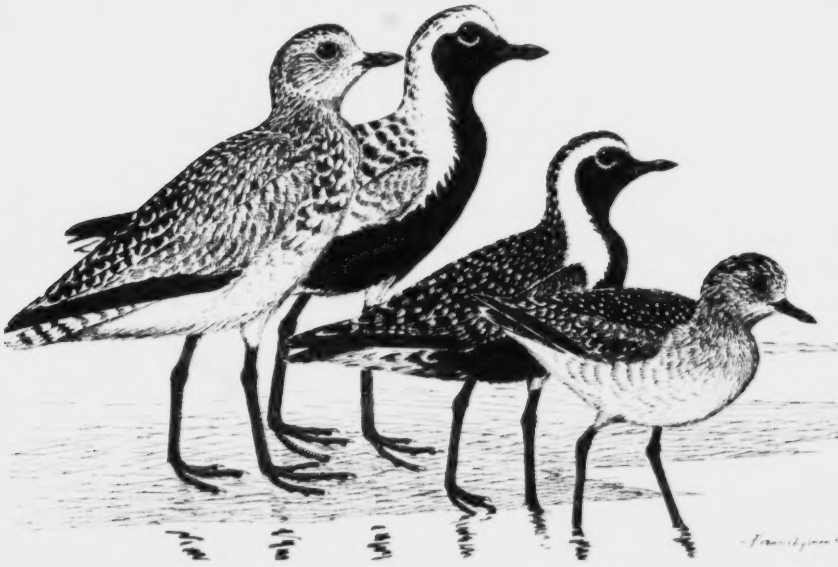
The "broken wing" antics of the adult killdeer when disturbed at the nest or with young are well known to all bird-watchers. Uttering a trilling plaintive sound, the bird limps along, now and then dragging a wing, now stumbling, occasionally lying supine with tail fanned, but always luring the intruder farther and farther from nest or young, until finally, at safe distance, it takes wing with what seems to be a derisive cry.

The semipalmated plovers on the ground in the illustration are easily disinguished from the killdeers by their smaller size, single neck ring, and the total lack of red on the rump and tail. The common call is entirely different also and may be expressed as a whistled "chee wee."

The "semipalms" appear along our southern coast-lines on their northward flight during April and May, with a large part of the migration moving up the west coast of Vancouver Island. In the fall the south-bound birds appear first in late July, and small flocks may be seen until late September. They are rarely observed in the interior. Non-breeding individuals are often recorded at southern latitudes during the summer months, behaviour not unusual in the shorebirds. The breeding birds nest from Alaska through the Mackenzie delta and across the north to the Atlantic seaboard. There is a nesting population as far south as Sable Island on the Atlantic side and south to the Queen Charlottes on the Pacific. We found them nesting on the north shore of Graham Island, Queen Charlotte Islands, where the eggs were deposited on the sand in shallow depressions with no immediate ground cover whatever. The protective colouring of the eggs, however, is such that even when at one's feet they are almost indistinguishable from the surrounding sand.

BLACK-BELLIED AND GOLDEN PLOVERS

The larger birds depicted here are black-bellied plovers; the smaller ones are golden plovers. Both sexes are coloured alike in each species, and in each the belly is white in winter plumage. Consequently, they are vastly different-appearing birds at different



Black-bellied plover.
Summer.
Winter.

Golden plover.
Summer.
Winter.

times of the year. It is rather startling for the novice, on picking up a specimen with a completely white underside, to be informed that the bird is a black-bellied plover.

The black-bellied plover is the more common bird of the two in British Columbia. During migration the species appears along the coast in April and May, and at this time it is fairly common along many beaches and wet grassy fields on Vancouver Island and the Lower Mainland. Small numbers remain to winter in those areas, but the majority migrate during September and early October to winter in the southern United States. So far this species has been recorded in the interior only during fall migration.

The black-bellied plover in breeding plumage is jet black below from chin to abdomen; the back of the head and neck are finely mottled in grey and white which persists down the back in coarser

pattern. A broad white mark carries from the bill, along the side of the head, over the eye, and down the neck to the shoulders, and the rump and tail show white when the bird is flying. The call is distinctive and can be readily used in identifying this species. It is a loud plaintive three-syllabled whistle not easily forgotten once heard. When the bird is in hand, black axillary feathers under the wing and the rudimentary hind toe provide positive identification of this species.

The golden plover is smaller than the black bellied and is brown on the back. The back is flecked with prominent golden-yellow spots, from which the common name of this bird has probably originated. In addition, the wings and tail are dark, the axillary feathers are grey, and there is no hind toe. The call of the golden plover is a single harsh-sounding whistled note, quite different from the three-syllabled call of the black-bellied plover.

Two subspecies of golden plover occur during migration in British Columbia. These are known commonly as the American golden plover and the Pacific golden plover. As they are very similar in appearance, we shall not elaborate on them here. The Pacific has been recorded only on the coast, but the American occurs both on the coast and in the interior.

American golden plovers are not numerous in British Columbia; they nest in the high north on the barren lands and on islands of the Arctic Ocean, and they winter in southern South America. On south-bound migration the main body apparently moves eastwards across the Arctic and thence south along the eastern shoreline, but in the spring the movement is farther west, through the central part of the continent. However, we do see them in small numbers in the interior and on the coast during both migratory periods—in May moving northwards, and from August until November moving south.

Taverner indicates that the Pacific golden plover is "confined to the west coast, breeding in northwestern Alaska and adjoining Asia and migrating to China, Oceania and New Zealand." It has been recorded in very small numbers on fall migration in British Columbia, with dates ranging from August 1st to November 4th.

SURF BIRD

The surf bird is a chunky, grey and white shorebird somewhat larger than a robin. It shows a marked preference for rocky sea-shores in the winter-time, travelling and roosting in company with black turnstones, which, at a distance, it resembles. The species is easily identified in flight, however, by the characteristic

Surf bird.

black and white markings on wings and tail. The bird here depicted at rest in the background is in winter plumage, while the bird in the foreground, marked on the breast and flanks with precise inverted " V's " of black, is in spring plumage.

Little is known of the nesting habits and migratory behaviour of these birds. Evidently the centre of the breeding range is in the

higher mountains of central Alaska, where the only recorded nest was found. The species may occur on the British Columbia coast in any month of the year, as non-breeding birds have been observed as far south as California during the summer, and as far north as Wrangell Island in the winter.

South-bound migrants appear along the southern British Columbia coast-lines in late July, many of them remaining here until the following spring, while others are known to migrate as far south as the coast of Chile. In April and May the birds begin to move northward, and after that time only occasional non-breeding birds are seen around our coastal waters.

Surf birds may be seen in numbers on the sea-washed rocks at the south end of Vancouver Island, on the lower mainland along the Iona Island jetty, and on almost any of the sheltered rocky shore-lines along the inside passage between Vancouver Island and the mainland. There are no records for the interior of British Columbia.

BLACK AND RUDDY TURNSTONES

Two species of turnstones occur along the British Columbia coast—the black turnstone and the ruddy turnstone. The black turnstone is the more common, occurring as a winter resident and as a migrant in the spring and fall, when it is seen about our rocky sea-shores in large numbers. This beautiful shorebird is confined almost entirely to the Pacific seaboard of North America, nesting, as far as is known, only on the Alaskan coast. During the winter months the black turnstone occurs along Pacific shores from Alaska south to San Francisco Bay. A few non-breeding individuals may be seen along the coast throughout the summer months, but as a rule the first arrivals appear in mid-July, disappearing again, for the large part, in March and early April.

The dark, sepia-coloured head, breast, and back of the black turnstone renders it most inconspicuous when at rest upon the rocks. When on the wing, however, its distinctive shrilling cry and the sharply contrasting white wing bars, white rump and belly make identification easy at a considerable distance.

Three blacks are depicted here in company with a single ruddy turnstone, the central bird in the illustration. Both species are about the size of a robin.

Ruddy turnstone. Black turnstone (3).

The ruddy turnstone has a circumpolar breeding range, nesting in the tundras of the high north, though comparatively few nests have ever been found. They migrate great distances, some of them wintering as far south as the Cape of Good Hope, New Zealand, and Australia. Their migratory routes thus lead over thousands of miles of open water, but as they have been observed to rest upon the sea, the distances involved are not surprising. Casual records obtained in the interior indicate that at least a part of the population migrates over the land.

Ruddy turnstones are more common in the eastern hemisphere than they are in this province, the main migrations apparently passing down the eastern Asiatic coast. Some of the birds that breed

in Alaska, however, do travel along the Pacific coast of North America, yet the majority of even these are said to move directly across the Pacific to the Hawaiian Islands. On the southern coasts of British Columbia, ruddys have been observed occasionally in spring during April and May and in autumn during August and September. They may occur at any time during migratory periods, but summer and winter records are lacking.

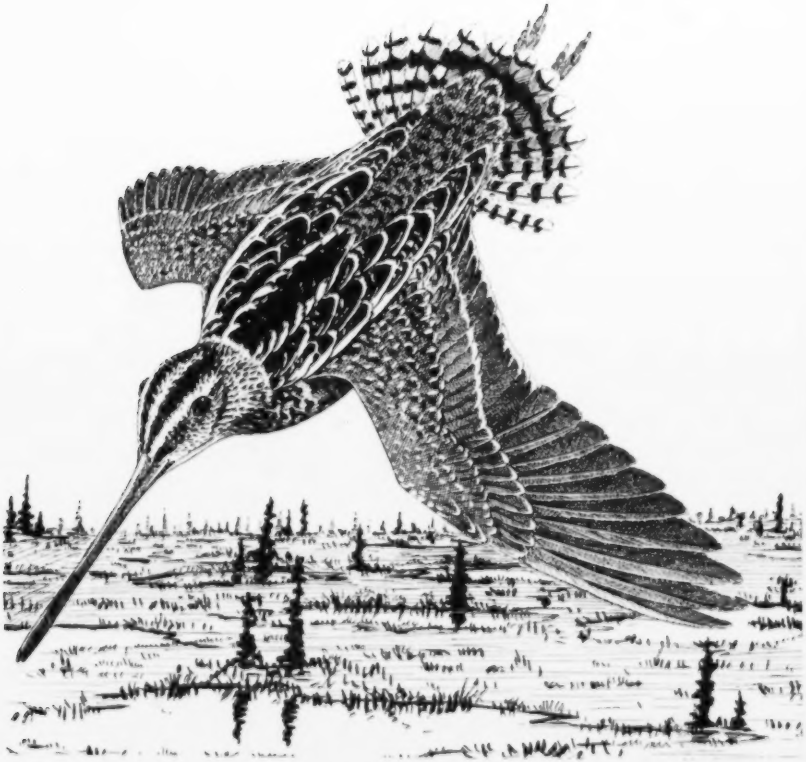
The ruddy turnstone resembles the black turnstone in size and shape, but is more highly coloured. The adults in full plumage have white heads marked with black, a glossy black chest, red legs, and brilliant rufous-coloured feathers on the back.

At Sandspit on the Queen Charlotte Islands, in late August of 1946, ruddy turnstones in migration were far more plentiful for a few days than were the blacks, also moving in large numbers at that time. However, though recorded regularly each fall in other coastal areas, these beautiful waders are comparatively uncommon in British Columbia.

WILSON SNIPE

The Wilson snipe is a beautifully marked wader about the size of a robin. It has an intricate colour pattern of woody browns, buffs, and ochres upon the back, dull-red tail feathers transversely marked with black, the outer two essentially black and white. The throat and breast are brownish in colour, fading out to white on the belly and flanks, the latter heavily barred with dark vertical stripes. In the field, however, one gets the impression of a dark bird which rises suddenly from the cover with a harsh rasping call as it zigzags away in fast spiraling flight. This is the only wader sportsmen are allowed to hunt now, and its habit of sitting tight and invisible in the cover, the fast take-off, erratic flight, and small size make it difficult to hit. Consequently, we find them dear to the heart of gunners and to those engaged in selling ammunition.

The snipe nests throughout many low marshlands in North America, although the breeding population is concentrated in the northern areas—Alaska, the Mackenzie basin, and eastward to Ungava Bay. Some nest throughout our interior and south to northern California. The large part of the population winters in



Wilson snipe.

the southern United States, but many birds remain in southern British Columbia, on Vancouver Island, and the Fraser delta until the first frosts harden the ground, remaining throughout during mild winters. In the fall we find them in salt marshes, wet fields, or flighting by in large numbers as dusk falls. A " wisp " of three to six birds is not an uncommon sight, and one winter, in fields along the Pitt River, we observed hundreds of birds descending together to feed, an unusual occurrence with this species.

The snipe does not show itself as do other shorebirds, and as they are seldom seen walking about upon the ground, hunters have little excuse for taking other shorebirds by mistake.

The bird depicted here is in courting flight, a display which occurs in the spring, usually in May and early June. The birds fly to a height where they are often barely discernible from the ground, and there, circling in a series of swoops, they produce a peculiar winnowing sound that long puzzled observers as to its origin. It has been argued by some that the sound was produced vocally, and by others that it was made by the wings. The general concensus to-day is that this peculiar bird sound is made by the two outer tail feathers, which, held downward when the bird is swooping, produce the sound by vibration as the air rushes through them.

No matter how the noise is made, it has a very strong appeal to bird-lovers, and the earliest recollection of many is the day he discovered just what created the mysterious rhythm that pulsated down from the skies at dawn.

HUDSONIAN AND LONG-BILLED CURLEWS

The curlews are the largest shorebirds of British Columbia. Standing from 12 to 14 inches high, these big pale-brown waders present a spectacular sight as they step majestically about on their stilt-like legs. The long decurved bill is a versatile organ, utilized in probing mud-flats for small crustaceans and worms, in catching small frogs, grasshoppers, spiders, crabs, and even in capturing insects on the wing.

Two species of curlews are found in this province—the Hudsonian, which is seen on the coast in migration, and the long-billed, which nests in the southern interior.

The Hudsonian curlew is the smaller of the two, standing about 12 inches high, somewhat slimmer in build and paler in colour. The characteristic call of this bird is comprised of four sharp, clear, whistling notes uttered in rapid succession, while on the breeding-grounds it is said to utter a soft " cur-lew " when undisturbed.

This species nests in the Arctic tundra from north-western Alaska to Hudson Bay, and it winters along the west coast of South America. The populations leave the wintering-grounds

early, sweeping northward, splitting at the south end of the North American continent, with migrations moving up the Atlantic and Pacific shore-lines.

Hudsonian curlew.

They appear in British Columbia in early April and May, moving swiftly north to the Arctic, and appear again en route south during August, September, and October. In 1951, 1952, and 1953 a small flock wintered in the Victoria area, where it was observed and noted regularly by Mr. Ted White, one of Victoria's most capable and persistent bird men. Some curlews winter in Southern California, but this is the northernmost wintering record for the species to date.

Long-billed curlew.

The Hudsonian curlew shows a marked tendency to frequent grasslands, and we usually find it on the grassy banks above our beaches or in open fields where fresh-water ponds occur.

In the grasslands of our southern interior, notably in the Kamloops, Okanagan, and Osoyoos areas, the much larger long-billed curlew occurs. This species is now becoming rare due to the usurping of its range for agricultural purposes, and vast numbers that once inhabited the great plains and other central and southern grasslands are now greatly reduced.

The curlew's name originated from its characteristic call, a long drawn out " curl-e-e-e-e-u-u-u " which quavers in flute-like tones across the open places. It never ceases to thrill and sadden the observer with its mournful quality, for this call is the epitome of the grasslands. It saddens because it seems, indeed, a requiem to once great habitats and the disappearing faunas they once harboured.

We found a pair of " long-bills " nesting in the Osoyoos area in the summer of 1951 where we secured movies of their flight; not without difficulty, for the species is usually very wild and cautious, and this particular pair was no exception.

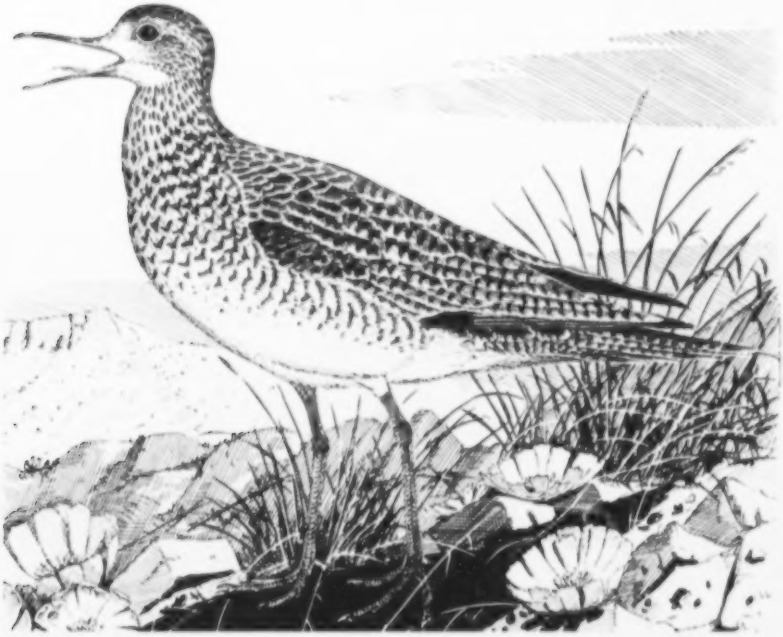
UPLAND PLOVER (BARTRAMIAN SANDPIPER)

The upland plover is actually a large sandpiper, and though the synonym " Bartramian sandpiper " is perhaps more correct, most ornithologists and bird-watchers cling to the first name. It is, indeed, a bird of the uplands, and one of plover-like habit, frequenting open grasslands and prairies where it nests. The breeding range extends across the interior of the continent from the central United States to the Mackenzie District. At one time these birds occurred in vast numbers all across the great plains, but the tilling of the soil has eliminated much of their former range, and, consequently, their numbers are greatly reduced to-day.

Upland plovers do not occur regularly along the coast, but are found in the north-eastern part of the province during the summer months, and occasionally in the dry southern interior. In spring migration they have been recorded in the interior during the month of May. In the fall the southward movement through that area occurs in August. So far we have only two authentic specimen records from the Pacific coast—one from Comox and one from Vancouver. The birds winter in southern South America, and in migration are said to travel at great height, as do many other shorebirds.

The upland plover can hardly be confused with any other species. It is about the size of the greater yellow-legs, but appears distinctly buff-coloured in the field. The head is very round, the bill and legs short, and these features, coupled with the ground movements of the bird, give it a peculiar grouse-like appearance. In flight the long pointed primaries, strongly marked in black and white, the dark rump, and the barred whitish outer tail feathers are distinctive.

The habitat and behaviour of this shorebird furnish other clues to its identity. It is seldom found near water; unlike other shorebirds, is has a habit of alighting upon fence-posts, telephone-poles,



Upland plover.

and other elevations; it often poses with wings outstretched over the back—all of which are distinctive characteristics.

The voice of the upland plover is a long, mellow trilling whistle, which it utters both in flight and upon the ground. It also has a distinctive alarm note, which is described as a " rapidly uttered ' quip-ip-ip.' " At times it utters a rich musical note which sounds like " qua-a-ily," which has led the bird to be known as the " quaily " over much of its range.

SPOTTED, SOLITARY, AND STILT SANDPIPERS

The spotted sandpiper depicted at the lower right and flying in the left background is a bird familiar to most observers in North America. In size it is somewhat smaller than a robin and is easily

identified by its greenish back, and in adults by the heavily spotted breast. Its habit of bobbing and the peculiar flight are also characteristic. On take-off the bird almost invariably utters a sharp " peet-weet-weet " and sails off on sharply cupped, rapidly vibrating wings, scaling upwards for a short distance and settling down again, usually a little farther along the shore. On rare occasions in the late summer and fall, they are said to rise to considerable height and fly in a more conventional manner, but few observers have seen this flight, and in most cases they were unable to identify the bird as a spotted sandpiper until it had come to rest.

The spotted sandpiper is distributed from coast to coast, nesting throughout Canada north to the tree limit. It winters in South America and in the southern United States, occasionally north along the Pacific coast to southern British Columbia. These waders do not migrate in flocks as do most sandpipers, but seem to infiltrate the summering areas, appearing in southern British Columbia in May and disappearing in October. During the summer they may be seen along the shores of most of our fresh-water streams, rivers, lakes, and along the sea-shore as well. One of their favoured haunts on the coast is where small streams or rivulets drain across tidal mud or sand flats to the sea, and there are many such places on the lower mainland and on Vancouver Island.

The solitary sandpiper (immediate centre foreground) occurs more frequently in the interior than it does on the coast. Two races occur in North America—an eastern one, which is differentiated by white margins on the feathers of the scapulars and back, and which occurs west to the eastern side of the Cascades, and a somewhat larger western race, in which the white of the above-mentioned plumage is a rusty colour. Both races occur in some areas in the western interior and occasionally on the coast—for example, both have been recorded at Okanagan Landing by J. A. Munro—but the status of these birds, their range, both winter and summer, is not clearly understood as yet.

The solitary is considerably larger than the spotted sandpiper (*see* cut), but has a similar greenish ground colour on the back and a similar call. The flight, however, is entirely different, and the breast is not heavily spotted. These characteristics, coupled with

Solitary sandpiper (foreground).

Stilt sandpiper

Spotted sandpiper.

size, should eliminate any confusion in separating adult birds of the two species.

The solitary sandpiper is well named; it is usually seen alone, seeming to prefer the edges of secluded fresh-water ponds, even though these be situated in heavy cover or among trees.

Most shorebirds nest upon the ground, but the solitary is unique in this regard, for it lays its eggs in the abandoned nests of robins, blackbirds, and the like, sometimes as high as 40 feet above the ground. For many years its nesting habits were unknown, and even to-day the eggs of the western race have yet to be taken.

The solitary sandpiper does not migrate in large flocks as a rule, but appears in singles or small groups in southern British Columbia during the month of May. It is probable that they nest in the province, as birds in breeding plumage have been secured in the Peace River parklands during the summer months. In July and August they migrate to their wintering-grounds in South America.

The largest bird pictured here (behind the solitary sandpiper) is the stilt sandpiper, another bird which is more often seen in the interior than on the coast. It is a very long legged wader, superficially resembling a lesser yellow-legs; one of the best field marks for this species is the legs trailing well out beyond the tail when the bird is in flight (far background). The spring adults have a heavily barred breast, finely spotted throat, and a rufous band across the nape of the neck which carries on over the eye. A similarly coloured mark is present over the ear and under the eye. The bill is longer than in most sandpipers of the same size, and it is slightly enlarged and decurved at the tip. When feeding, this bird often plunges its whole head and neck under the water. The lesser yellow-legs, with which it may be confused, has the habit of " teetering and nodding "; the stilt sandpiper does not.

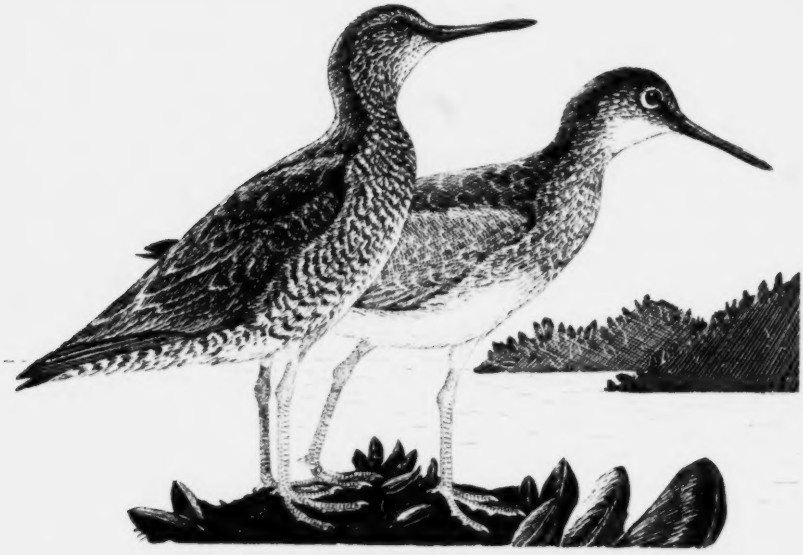
The few British Columbia records for this species have been taken during migratory periods. In May, 1930, one was taken at Boundary Bay, and in June, 1927, one was collected at Okanagan Landing. Seven records were taken years ago in August and September—six in the interior and one at Sumas. Mr. Theed Pearse, of Comox, however, has observed stilt sandpipers at Comox on six occasions since 1937.

The stilt sandpiper is one of the rare shorebirds, apparently not plentiful anywhere. Comparatively little is known of its range and migratory routes. According to Bent (1927), eggs have been taken on three occasions, and only in the northern Mackenzie, but it is thought that they nest across the north from northern Alaska to northern Manitoba. The winter range is imperfectly known; the bird has been recorded in Louisiana, Texas, and in South America during the winter months.

WANDERING TATTLER

This large beautiful grey and white shorebird is another frequenter of the rocky sea-shore. It migrates from its nesting-ground on Arctic gravel-beds to winter along the Pacific shore-lines south of Santa Barbara, California. There are occasional records from New Zealand and Australia, and a large population winters on the Hawaiian Islands and down through the South Sea Islands. Dr. W. W. Nelson, in Bent's "Life Histories," writes: "Across the broad ocean it ranges to those bits of paradise dotting the South Seas, tripping its way daintily on the beaches of coral-enclosed islands, their feet laved by the warm waters of the tropics, and their eyes familiar with the luxuriant face of nature in its gentlest and most lovely state. The next season may find them thousands of miles to the north, under the shadow of the stupendous cliffs and grand but desolate and repellent scenes of the Aleutian Islands." Thus the wandering tattler is well named, the tattling part probably originating from the bird's habit of bobbing and teetering as it works among the rocks.

These birds appear along the rocky sea-shores of British Columbia in April and May during the spring migration, but there are very few records for the interior of the province in either spring or fall. On their way south they may be seen throughout August and September and sometimes as early as July. They are not so numerous as some other species of shore birds occurring along the coast, and have the habit of travelling alone, or in small groups of two or three. However, they do occur regularly, and the persistent bird-watcher will almost surely record this bird if he or she stays afield during the migratory periods.



Wandering tattler.
Summer. Winter.

The bird in the foreground of the accompanying illustration is in full nuptial or spring plumage. The grey of the back is intensified at this time, while characteristic black markings are prominent along the throat, breast, and flanks. In the fall, most of the birds observed here are assuming the dull winter plumage, depicted on the bird in the background, where the intense black and grey markings have disappeared to a large extent. Young of the year resemble the winter adults in this respect but seem to be smaller and more slim than the parent birds.

In the field, tattlers are sometimes difficult to see when at rest, but upon flushing, their loud flute-like call of from three to four notes, general nondescript greyishness, and that bobbing habit when they realight serve for easy identification.

Lesser yellow-legs. Greater yellow-legs.

GREATER AND LESSER YELLOW-LEGS

The greater and lesser yellow-legs are almost identical in plumage, and both possess a varied number of strident calls, which, while easily attributed to one or the other of these birds, are quite useless in separating them. Unless one has had the opportunity to study them carefully in the field, size is the only useful feature in separating the two yellow-legs. This, of course, is a simple matter when both are seen together, which is often the case, but sometimes it is difficult to identify a single bird as it passes by. Both

yellow-legs are easily distinguished from other species by the long yellow legs, the general grey and black plumage above, and a rump and tail which are almost completely white. The greater yellow-legs stands about 9 or 10 inches high; the lesser is considerably smaller, as the illustration shows. Often, however, we see birds of intermediate size, and, unless taken in the hand, these are difficult to identify.

Both species frequent fresh-water ponds as well as the shallow margins along our sea-beaches and tidal marshlands. They usually feed while wading in the water and, as a rule, are not seen in the meadow lands to the same extent as many other shorebirds. It is not unusual to see these birds alight in water beyond their wading depth and from there to swim into the shallower reaches, a practice not common with shorebirds.

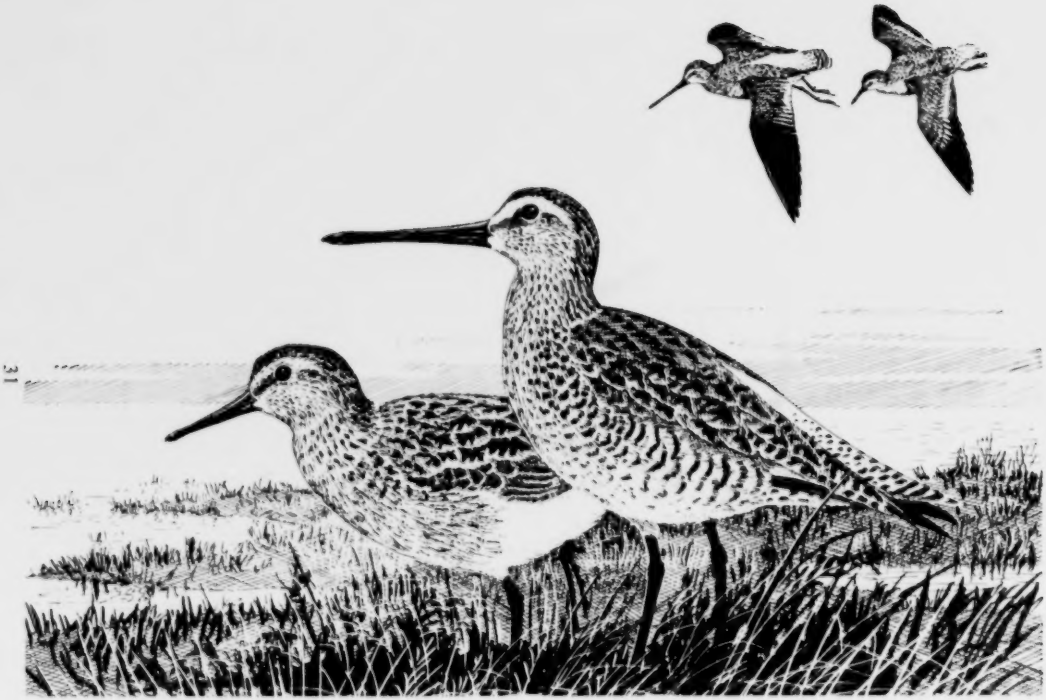
We see the yellow-legs in April and May during spring migration when they are en route to the breeding-grounds in the Cariboo and Alaska, where they nest a good deal farther south than do many other species of shorebirds. In the fall they pass southwards in late July, August, and September on their way to the southern United States and South America, where they spend the winter. During some years greater yellow-legs winter on the southern coasts of Vancouver Island, feeding in shallow bays and lagoons along the rocky shore-lines.

Winter plumage in both species is dull as compared to that of spring, when the black markings become more prominent on flank and back (especially in the greater yellow-legs). Both birds illustrated here are in full spring plumage, but many of the individuals we see in migration are in the process of change; consequently, markings on the flank are often of little use in recognition.

The greater yellow-legs is one of the most common and best known of the shorebirds, occurring on both the outer coast-lines and lake-shores of the interior. Lesser yellow-legs are comparatively rare on the coast, being more frequently seen around the interior sloughs.

DOWITCHER AND KNOT

The dowitcher (centre foreground and flying above) is a large sandpiper, measuring about 10 inches from bill to tail. In spring



Knot. Dowitcher.

plumage the under-parts are a soft brick-red colour throughout, while the back and upper parts are dark brown with lacings of ochre. The rump and tail are finely barred with black and white, a characteristic which aids in the field identification of this species. In winter plumage the dowitcher is a light-grey colour above and white below. The white rump and barred tail, however, are still present and prominently displayed when the bird is in flight.

Dowitchers can be confused only with the Wilson snipe and the knot; with the Wilson snipe because of the long bill and generally dark back, and with the knot because of the brick-red colour. The Wilson snipe does not have the white rump, and the bill of the knot is noticeably shorter than that of the other two species. The knot (centre background, flying at extreme right) is somewhat smaller in size than is the dowitcher and has a brick-red throat and breast, but the abdomen and under tail coverts are white. The back is finely mottled in grey, black, and ochre, and the upper tail coverts—not the rump—are white, barred with black. At a distance in winter plumage the knot appears pale grey above and white below. In the hand, however, one sees a faint pattern of black and white edging to the feathers of the back.

Dowitchers are common transients along the coast as they move between their breeding-grounds in the high north and wintering areas which extend from California, east to Cuba, and south to Ecuador. On the coast they may be seen on mud-flats, sandy sea-beaches, and sometimes about grassy areas bordering the sea. They arrive on southern Vancouver Island and the lower mainland in April when on spring migration, and are seen again from August through October in the fall. In the interior they are a common fall migrant appearing around lake and slough margins en route south. The northward migration, however, seems to miss the interior, for there are few spring records.

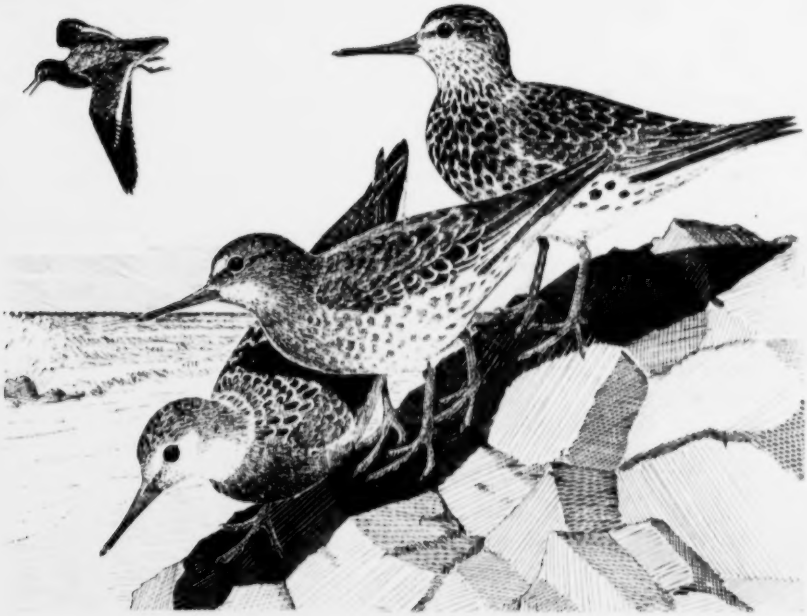
Knots are uncommon on the British Columbia Coast at any time. The few existing records indicate that some move along the coast in April and May on the northward flight and in August and September in the fall. On the Atlantic seaboard, where they are much more common, they are said to prefer the pebble beaches, although sandy sea-beaches and mud-flats are also utilized. Of

the birds collected recently in British Columbia, some were taken on tidal mud-flats, others on coarse boulder beach, and one from the rocky sea-shore. In a four-year period on southern Vancouver Island the knot was recorded only twice—a lone bird in flight at Oak Bay on September 9th, 1950, and a flock of nine at Otter Point on September 2nd, 1951.

The breeding range of these birds is not well known, but it seems to be situated mainly in the north-eastern part of the continent. Knots migrate down the Atlantic coast for the most part, wintering occasionally in Louisiana, but mainly in Florida, and south through most of South America. There are no specimen records for the interior of British Columbia as yet.

ALEUTIAN SANDPIPER

Systematists have speculated whether the Aleutian sandpiper of the west and the purple sandpiper of Europe and eastern North America are of the same species; they have speculated also upon the position of a similar though larger bird which nests on the Pribilof and other islands of the Bering Sea. All of these birds have certain characteristics in common, and have undoubtedly originated from the same ancestral stock. Differences in range, habit, and morphological characteristics, however, have led to argument, so that some confusion exists in use of the vernacular name of these sandpipers. Consequently, we hear the terms " rock " sandpiper, " purple " sandpiper, " winter " sandpiper, and "Aleutian " sandpiper all applied to the same bird. It depends entirely upon the individual's point of view; if he or she holds the birds are of one species, the terms " purple," " rock," or " winter " sandpiper are equally correct. If, on the other hand, the observer believes that the apparent differentiation warrants full specific standing, the term " purple " sandpiper applies to the eastern bird, the term " rock " or "Aleutian " sandpiper to the bird of the west, and Pribilof sandpiper to the larger bird which nests in the isles of the Bering Sea. Some workers lump the Aleutian and Pribilof birds as one species, made up of two subspecies, but it all boils down to just what the individual worker's criterion for a species is, and consequently the argument persists.



Aleutian sandpiper.

The bird we see in British Columbia in the winter months is that which nests on the Aleutian islands, and it is perhaps better designated as the " rock " or "Aleutian " sandpiper. It winters as far south as Washington, though many birds remain the year round on the Aleutians, and wintering flocks are scattered all down the coast of British Columbia. They arrive at the south end of the province in October and November, remaining along our rocky sea-shores until March and April in company with black turnstones and surf birds. The Aleutian sandpiper is a coastal species and so far has not been recorded in the interior of the province.

The counterpart of the Aleutian sandpiper in Europe and on the Atlantic seabord (the purple sandpiper, if you like) winters along the north Atlantic coast from Greenland south sometimes

to the northern United States, while the Pribilof birds migrate only to the Alaskan coast rarely as far south as the Lynn Canal.

Most of the sandpipers seen here are in full winter plumage and are easily differentiated from the somewhat similar surf birds and turnstones by their smaller size. The plumage on the head and back appears uniformly dark in the field, but in proper light it has a somewhat purplish tinge. The lower breast and flank are coarsely spotted with black which fades out to white on the abdomen. In flight, a flash of the white secondaries is seen.

We have not observed these birds in spring plumage on the southern coast, but there are skins at the Provincial Museum which show a variegated plumage of buffy ochre, dark browns, and white on the neck and back, a mottled breast of browns and greys to black fading out, again, to a white abdomen. The feet of the Aleutian sandpiper are yellowish in colour.

The flying bird and the bird in the foreground of the illustration are in full winter plumage, while those in the background show spring plumage.

WHITE-RUMPED AND SHARP-TAILED SANDPIPERS

The white-rumped sandpiper breeds in the Central Arctic and winters mainly in South America from Uruguay south to Patagonia, migrating to and from these widely separated areas along the central and eastern side of the continent. Despite this fact, there are two records for the province, both taken in May—one at Tupper Creek and one at Atlin.

As the name implies, this small sandpiper has a distinctive white rump. It is white below, brown above, and in most respects resembles an overgrown least sandpiper. If it should occur here, it will probably be in company with other sandpipers which migrate through this province and which breed in the same Arctic areas. Where they occur regularly, it is said they prefer muddy shores to those of sand, and it is possible, though by no means certain, that a fresh-water habitat would be preferred to the sea-shore.

The sharp-tailed sandpiper breeds in north-western Siberia and migrates down the eastern side of the Asiatic continent to Japan, Malaya, Australia, and New Zealand. In the fall these sandpipers

occur regularly, sometimes in large numbers, on the Pribilof Islands. According to Bent (1927), "in southern Alaska and farther south it occurs only as a rare straggler," but Mr. Ronald Stewart, of Masset, has collected several specimens on the Queen Charlotte Islands, where, he says, they are plentiful some years during the fall migratory period. Specimens have been taken on this side of the Pacific as far south as San Diego, California, so the sharp-tailed sandpiper could and may occur here more regularly than has been suspected.

Sharp-tailed sandpiper. White-rumped sandpiper.

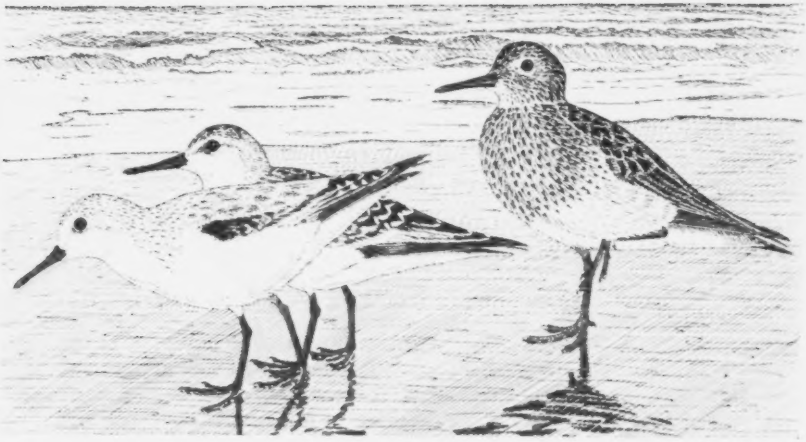
According to Mr. Ronald Stewart, one of British Columbia's leading field ornithologists, the sharp-tails he has observed and collected preferred the grassy edges of tidal mud-flats to a larger extent than did the very common pectorals, with which they can easily be confused. The sharp-tails crouched and often ran a short distance through the grass before flushing, while the pectorals remained upright and were more often seen on the open shores. As I recall, Mr. Stewart said that the only view of a live sharp-tail he has ever had was from the back as it skulked off through the grass, while the pectoral often faced the intruder, thus exposing that conspicuous streaked buffy breast. The sharp-tail and the

pectoral are very similar in size and appearance, but the buffy breast of the former is not streaked; the buff colour is subdued and it blends into the white of the belly, rather than being sharply defined. Other workers, who have observed the bird on the Asiatic coast, state that " it is so much like our pectoral sandpiper in appearance, behaviour, and haunts that it has probably often been overlooked; it may therefore occur in our northwestern coast much oftener than we suspect " (Bent, 1927).

SANDERLING AND PECTORAL SANDPIPER

The sanderling is one of the medium-sized sandpipers (a bit smaller than the robin) which occurs regularly in migration along this coast and which sometimes spends the winter at the south end of Vancouver Island and on the Fraser estuary. In April and May they stop briefly on some of our sandy sea-beaches on their way to the Arctic and sub-Arctic regions, where they nest. At this time, many of the birds show a considerable amount of warm buffy tones intermingled with black on the head, neck, and back, while the under-parts and flanks are snowy white. In flight they show a broad white stripe contrasting with the black of the wing; the tail also shows white with a contrasting black mark in the centre. These marks, coupled with their steady flight, make field identification easy. Closer examination will show that these birds have only three toes; the hallux, or hind toe, is lacking. The startling whiteness of the sanderling, however, is the characteristic which makes it stand out amongst the sandpipers, and most observers on first seeing it, especially in winter plumage, get the impression of a completely white sandpiper, until a closer look or take-off of the bird reveals the black markings.

In August and September the migrants pass through en route south, frequenting sandy sea-beaches and mud-flats all along the way to the main wintering-grounds, which extend south from the 40th parallel to the Argentine. Occasionally, a few sanderlings winter along the beaches at the south end of Vancouver Island, while Iona Island and the foreshores of Lulu and Sea Islands are the areas utilized on the mainland side. In the interior they have



Sanderling.
Summer.
Winter.

Pectoral sandpiper.

been seen occasionally during fall migration at Arrow Lakes, Okanagan Landing, and Swan Lake.

The pectoral sandpiper pictured here on the extreme right is somewhat larger than the sanderling and is a brown and white rather than a grey and white bird. The breast is a tan colour, moderately marked with dark stripes in breeding plumage, while the back is essentially brown, changing to an ashy colour in the winter. While we find these birds in the grassy fields to a large extent, they also frequent the sandy sea-beaches and mud-flats during migration. The pectorals nest in the Arctic tundras, most of them migrating from the north-western areas across the continent to the east coast of the United States, and thence to southern South America, where they spend the winter. They occur somewhat irregularly on the Pacific coast, and some years we see none at all, while in others large numbers are recorded. Present records indicate that a large part of the migration passes through the interior via Okanagan Lake and north-west through the Cariboo, where, at the right season, they may be seen beside almost any

slough or lake which has suitably flat shores. Pectoral sandpipers are most often seen in British Columbia during the month of May in spring migration and again through August and September in the fall.

RED-BACKED AND BAIRD SANDPIPERS

The two birds shown on the left here are red-backed sandpipers, otherwise known as dunlins. They are very active, medium-sized birds, somewhat smaller than a robin. The bird on the left is in grey and white winter plumage, while the one in the centre has taken on the breeding plumage. In the latter the back is red, the belly carries a large jet-black patch, and the browns and greys of the remaining plumage have intensified to such an extent that most casual observers will believe they are observing two different species. It is this plumage change that makes the sandpipers such a difficult group for most beginners, as it is not unusual to see spring, intermediate, and winter plumaged birds in the same flock. The young of the year resemble the winter adult and are often smaller in size, which adds to the general confusion.

The red-backs breed in the far north, and winter farther north than do many other shorebirds. Large wintering populations may be seen on the tidal mud-flats at the mouth of the Fraser, where it is not unusual to see flocks numbering several hundreds of birds. They take off as one, and in tight formation; wing-tip overlapping wing-tip, they shear this way and that across the tidal flats, flashing white under-parts one moment, grey backs the next. A source of wonder and amazement to the bird-watcher is the perfect control exercised in these aerial manoeuvres, for seldom is there a collision, and never, it seems, do any get their " signals " crossed and bank the wrong way. Suddenly the whole flock alights and a multitude of bills begin probing the mud for small crustaceans, amphipods, worms, and the seeds of aquatic plants.

The red-backed sandpiper winters as far south as Florida, and in the spring large migrations move northward along both coasts. In April and May they are numerous along most of our beaches, and a sortie along the sea-shore will usually reward the observer. They occur only in small numbers in the interior of the province.

Red-backed sandpiper.
Winter

Baird sandpiper.
Summer.

The Baird sandpiper, shown on the right in the illustration, is somewhat smaller than the red-back. Winter and spring plumage differs somewhat, but the difference is not so marked as in the foregoing species. The clear silver-grey under-wing, shorter bill, and white-margined feathers of the back are the identifying features of this bird. It is far more common in the interior of the province than it is on the coast where we see them on migration either as single birds or in small groups of three or four.

The Baird sandpiper nests across the high north from the north-eastern coast of Siberia, northern Alaska, Mackenzie, Baffin Island, and probably to Greenland. It winters in South America.

" PEEPS "

The term " peeps " is generally applied to small sandpipers of three species—the western, the least, and the semipalmated. All are about the size of house sparrows; all are somewhat difficult to differentiate in the field; and all occur in British Columbia. The western and the least occur regularly in spring and fall migration on the coast, but are comparatively scarce in the interior, while the semipalmated is rare on the coast at any time and occurs in numbers only in the fall migration through the interior. Consequently, coastal bird-watchers may usually eliminate the semipalmated sandpiper as a possibility when they observe a flock of " peeps " on the beach.

The western and least often travel together in large flocks, frequenting the sandy sea-beaches and tidal mud-flats at low tide. Normally they are easily approached, and, with field-glasses, when light conditions are right, the yellowish-coloured legs and feet of the least may be seen in sharp contrast with the black ones of the western. In the air the flocks " heliograph " in low rapid flight, swinging this way and that, much as the dunlins do, but the diminutive size of the " peeps " is enough to separate them from the dunlins.

In the spring there is a considerable amount of rufous colouring on the neck and back of the western sandpiper, whereas the least appears to be darker. However, as the birds seem to be in a continual change of plumage that varies with age, it is most diffi-

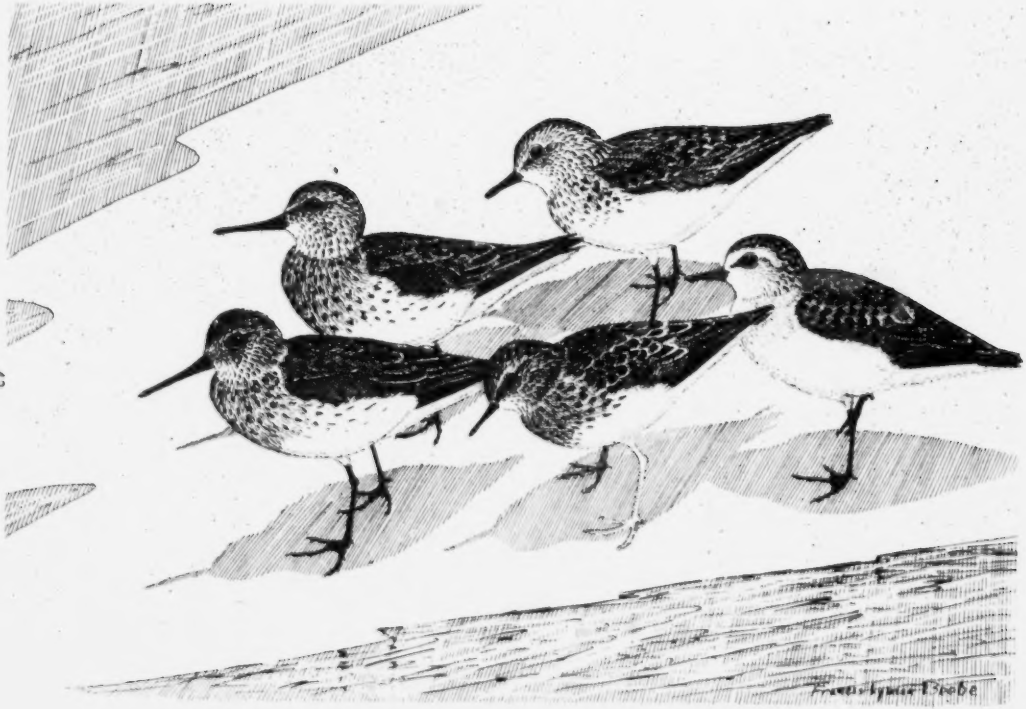
cult, except under ideal conditions, to use plumage for identification. Taverner states that " in general, the least is the darkest, the western the reddest, and the semi-palmated, the greyest of the three." He is referring, of course, to the plumage of the back; the birds are snowy white underneath, with more or less streaked buffy breast bands, said to be more prominent in the least. The bills of individual sandpipers vary a great deal, growing longer as the bird ages, so that generalizations on those of the " peeps " often lead to confusion. The bills of the least and western are somewhat decurved, while that of the semipalmated is straight or slightly upturned and appears to be heavier—characteristics not easily seen in the field.

The western sandpiper nests in a restricted area on the coast of north-western Alaska, wintering across the extreme southern United States and south to northern South America. The migratory routes are not well known, for although a large part move along the Pacific coast, many birds are observed on the Atlantic seaboard as far north as New York, but their route from there to Alaska is still a mystery.

We see them here in April and May on spring migration and again in July, August, and September in fall migration. Boundary Bay, Point Grey, and the foreshores of Lulu, Sea, and Iona Islands are all good areas, but one is likely to see them on any strip of beach during the migratory periods.

The least sandpiper nests south of the barren lands across the North, the range extending as far south as Nova Scotia on the Atlantic seaboard and to southern Alaska in the west. In the west the spring migration moves along the coast with relatively few birds passing through the interior, while in the fall there is a considerable movement through the interior as well as on the coast. They travel in company with the westerns, appearing locally at the times and places designated for the latter. When disturbed the two species will often split into separate flocks, rejoining as they land farther up the beach.

The semipalmated sandpiper nests across the high north, from north-eastern Siberia, Alaska, Herschel Island, Victoria Island, to Okkak in Labrador. They move southward through the interior



Western sandpiper (2). Least sandpiper (single in foreground). Semipalmated sandpiper (2).

and the eastern side of the continent in July and August to winter in the southern United States, central South America, and rarely as far south as Patagonia. In the spring the main migration moves north to the breeding-grounds along the eastern side of North America.

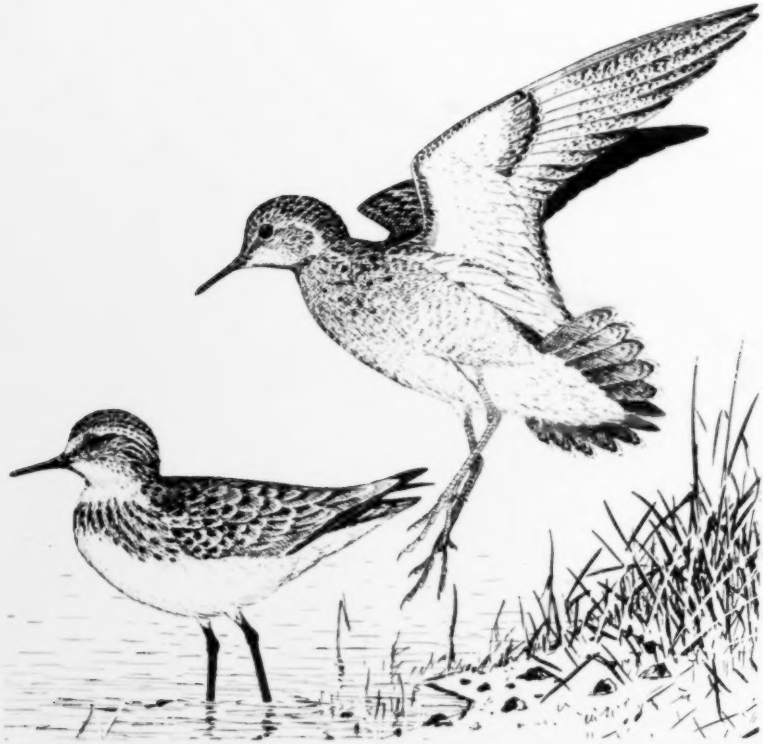
The illustration accentuates the key characteristics of typical adult birds. Note the long bills in the two westerns at the extreme left; the short slender bill, light-coloured feet, unwebbed toes, and dark back of the single least sandpiper in the centre foreground; and the short heavy bill and subdued breast band of the two semi-palmated sandpipers at the right. Keep in mind, however, that we sometimes get westerns with bills shorter than those of the least; that the plumage varies greatly in all three species with age, season, and the individual; and that in general the " peeps " are a difficult group—to be identified with caution.

BUFF-BREASTED SANDPIPER

The buff-breasted sandpiper depicted in flight here is a medium-sized bird, larger than a " peep " but smaller than the dowitcher. It is well named, having deep buff-coloured plumage on the breast, which fades out to white toward the tail. The back is generally dark brown, with some feathers margined by light buffy lines. The under-wing is pearly white, flecked with distinctive lacy black markings. This sandpiper is a bird of plover-like appearance and habit, having a round head, comparatively short legs, and a decided preference for the uplands.

The buff-breast is one of our most beautiful sandpipers, but unfortunately it does not occur in large numbers except when concentrated on the wintering-grounds in southern South America. The breeding-grounds extend all along the Arctic coast from Hudson Bay westwards. In migration the birds appear to scatter from coast to coast, moving south across the whole width of the continent.

The buff-breasted sandpiper has been recorded in British Columbia on comparatively few occasions, mostly during the month of August in fall migration. One was taken in June near the Yukon-British Columbia Boundary in 1934, and one at Nulki Lake,



Baird sandpiper. Buff-breasted sandpiper.

near Vanderhoof, in August, 1946. Early records (two) were secured at Sumas in August, 1899, but from those dates no specimen records were secured until August, 1946, when eight were taken at Sandspit on the Queen Charlotte Islands. The late Major Allan Brooks, however, had sight records of buff-breasts for every year that he spent on the Pacific coast. Mr. Ted White, of Victoria, also an authority on shorebirds, photographed buff-breasts at Victoria in late July, 1947, and again in August, 1950. Consequently, we feel that British Columbia bird-watchers have a fair chance of observing these rare sandpipers.

Marbled godwit. Hudsonian godwit.

MARBLED GODWIT AND HUDSONIAN GODWITS

The marbled godwit (flying in the lead in the illustration) is a large, pale, buff-coloured bird with fine dark markings on the underwing and body, hence the appelation "marbled." These waders are second in size only to the long-billed curlew, which they somewhat resemble in colour, but they have a shorter, slightly upswept bill, which differs sharply from the long decurved bill of the curlews. They are essentially birds of the prairie sloughs, around which they nest, but occasionally they occur in British Columbia during the migratory periods. The species has been recorded at Fort Simpson

and on the Queen Charlotte Islands in May, and at Victoria, Columbia Lake, and Okanagan Landing in August. These localities are by no means regular haunts of the bird, but each actually represents a single observation. Apart from the Columbia Lake record in 1941, the remainder were made around the turn of the century.

At one time, flocks of marbled godwits were extremely numerous across the great plains and on the wintering-grounds in the southern United States and in Central America. Man has since eliminated much of the breeding range through agricultural pursuits, and to-day we find the numbers greatly reduced throughout their normal range. For this reason, among others, it is extremely unlikely that many bird-watchers will record the marbled godwit in British Columbia.

The Hudsonian godwit (right) is appreciably smaller than the marbled, and much darker in spring plumage. The upswept bill and general features, however, also serve to make identification of this species easy.

As early as 1840 ornithologists prophesied the extinction of the Hudsonian godwit, but it seems to have held its own, and to-day occurs throughout much of the former range, although still in very small numbers. Some scientists believe it never was an abundant species, or that perhaps had suffered some early catastrophe on the wintering-grounds in southern South America.

In April the birds arrive on the coast of Texas on spring migration; thence they pass northwards up the Mississippi Valley, across the Canadian prairies, and down the Mackenzie Valley to the Arctic coast, where they nest. They have been recorded on three occasions in British Columbia, all during the month of May—twice at Atlin and once at Tupper Creek. A truly rare bird which few British Columbia bird-lovers have seen, it rates a high place on our roster of interesting wildlife.

AVOCET AND WILLET

The two birds pictured here are of rare occurrence in British Columbia. The avocet, the only representative of the family in British Columbia (left), is a large shorebird with a pigeon-sized

body, long neck and legs, and with conspicuous markings. The wings are black with white secondaries and a prominent white patch on the leading edge of each wing next to the body. The back is also marked in sharply contrasting black, buff, and white, while the rump and tail are white. The most striking feature in plumage, however, is the startling pinkish-buff coloration of head, neck and breast. Add to these features a slender, decidedly upcurved bill, very long pale-blue legs, and the result is a spectacular-appearing bird which can be confused with nothing else.

Avocets are bold creatures, frequenting the open margins of prairie sloughs, where they can be seen at a great distance. When disturbed in the vicinity of nest or young, they very often fly swiftly toward the intruder at eye level, uttering a series of strident yelping notes that seem to intensify as the bird approaches. At arm's length they suddenly "peel off," circle, and bore in again, picking up speed as the distance closes; it takes considerable willpower to resist ducking before the bird breaks off.

The main avocet population is centred on the great plains, where the birds nest in southern Alberta and Saskatchewan and southwards into the United States. The wintering range extends from the southern United States to Guatemala. Very few avocets have been recorded in Canada east of Saskatchewan, and only three west of the prairies of Alberta. One of these was taken at the mouth of the Fraser River, and two in the southern interior of British Columbia.

The willet (right) is a striking grey and white sandpiper about the size of the avocet. It is easily recognized in flight by its long conspicuously marked black and white wings and by the white rump and tail. At rest it resembles the greater yellow-legs but with greyish-blue legs.

Two races occur in North America—one confined to the Atlantic seaboard, and a slightly paler form which is found on the great plains, west usually only to Alberta. This western race, in which we are interested, nests as far north as Edmonton and sometimes as far south as Wyoming. The birds winter in the southern United States south to Peru, and occur at that time along the southern coast of California as well. It is highly probable that

Avocet. Willet.

the few records for the province have originated from this coastal wintering population.

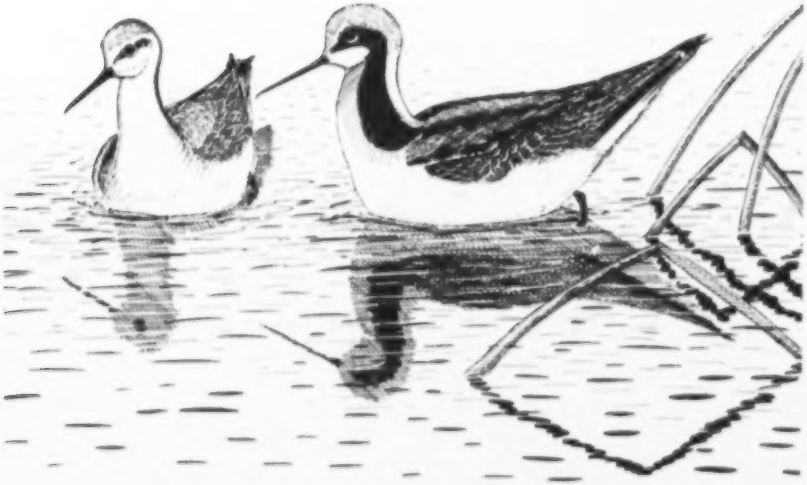
In British Columbia a single specimen was taken at Clover Point by Mr. J. Henley in 1898 and recorded by John Fannin. As there is no trace of this bird in any collection, the record was questioned. Much later (in April, 1945), Mr. J. O. Clay, well-known bird-observer of the Victoria Natural History Society, recorded fifty willets at Oak Bay in Victoria. Again, due to lack of specimens, this record was questioned. Mr. H. M. Laing, former National Museum ornithologist, has since collected the willet at Comox, and this species is now officially accepted on the bird list for British Columbia.

WILSON PHALAROPE

The phalaropes are peculiar little waders that differ in many respects from other shorebirds. In structure: the toes are bordered by web-like lobes; the tarsi are flattened; the plumage is dense and gull-like; the female of the species is the highly coloured bird, while the male has dull plumage. In behaviour and habit: these birds spend much of their life on the water often many miles off shore; they ride buoyantly, swimming with a peculiar jerky whirligig to and fro motion as they feed along the surface; in courtship the female is the aggressor, and once the eggs are laid she takes off to the centre of the slough to "kibitz" with others of her sex and kind. The male in the meantime incubates the eggs and raises the young. (Most female bird-watchers greatly admire the phalarope!)

There are three kinds of phalaropes in North America, all of which occur in British Columbia; they are the Wilson, northern, and the red. This section is concerned with the Wilson phalarope, a bird intermediate in size between the common house sparrow and the robin.

The female Wilson phalarope, depicted at the right beside her dull-coloured mate, is characterized in the spring by a heavy jet-black mark running across the eye. This mark extends to the upper portion of the neck, where it changes to a deep chocolate colour. From the base of the neck this streak extends as a narrow line along the back. The wing coverts are grey with reddish markings, the



Wilson phalarope.

primaries are black. The top of the head and the back are a soft grey in colour, the throat a rich buff colour, and the under-parts snowy white. The male in spring has a tinge of buff on the throat and a reduced black mark through the eye which does not continue down the neck. The back is greyish-brown, and, as in the female, the under-parts are snowy white. Young birds resemble the spring male, but are paler in colour and have streaks of red on the back. In winter plumage the Wilson phalarope loses the high colour and appears simply pale grey above and white below.

This phalarope nests around sloughs throughout southern portions of the prairie provinces and on the plains of the United States; it does not migrate to the Arctic as do many other shorebirds. The Wilson phalaropes occur regularly, though in small numbers, through the interior of British Columbia, nesting in the southern parts and in the Cariboo district to the north. It has been recorded in those areas during every month from April through August. In coastal areas this phalarope is of casual occurrence only, having been recorded (specimens) only twice—once at Chilliwack in September and once at Comox in October.

The winter range of this species is not clearly demarked as yet. The available records, however, indicate that it extends from the extreme south-western portion of the United States, through Mexico and South America, to the Argentine.

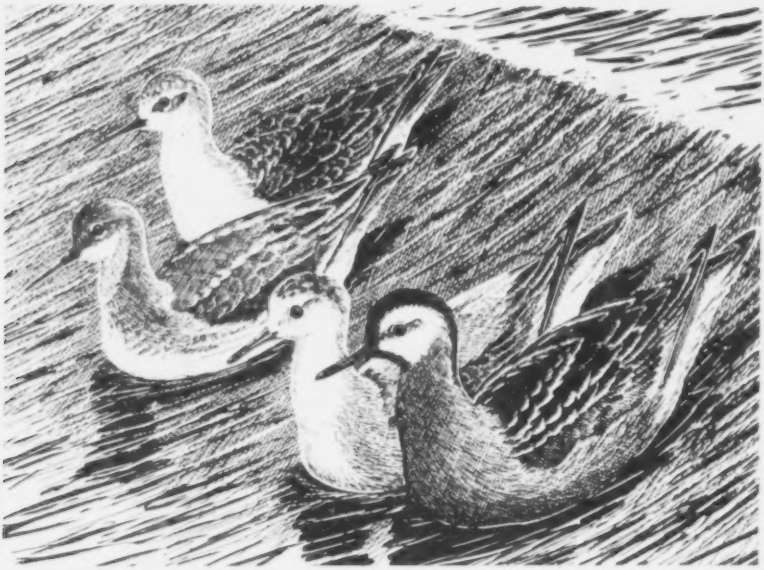
RED AND NORTHERN PHALAROPES

Red phalaropes are birds of the open sea, and apart from a few weeks spent on the breeding-grounds along the shores of far northern seas, they seldom come close to shore. In April and May they sweep northward past our coast many miles from land. In August and September they move again over the same waters en route south, to winter on the open seas off the coast of South America.

Mr. Patrick Martin, Game Management biologist for the interior, who for years was engaged in commercial fishing, told me that the main migratory route of the reds was over the "blue water" of the Japan Current. Apparently they seldom leave this warm current, but on occasion, due perhaps to storms or some intrinsic wanderlust, they occasionally come into the coastal waters and, very rarely, even into the interior. There was a large influx in the waters around southern Vancouver Island in the fall of 1953.

The two birds shown in the immediate foreground are red phalaropes, the highly coloured female swimming in front of her drab mate. Below she is brownish-red throughout from the front and side of the neck to the tail; the sides of the face are white; the top of the head is black; and the back is streaked with black and buff. The spring male is similar but with colour and pattern subdued. In winter these birds are essentially grey above and white below, but are distinguished from the other phalaropes by their larger size and a broader bill.

Considerable work has been done upon the feeding habits of these birds. It has been found that they feed on kelp flies and other insects while on the breeding-grounds, and upon small pelagic crustacea while at sea. They habitually flock up and follow whales, feeding upon the leavings of these giant cetaceans. Old-time whalers took advantage of this avian habit to locate their prey, and bestowed upon the phalarope the name "whalebird."



Northern Phalarope.
Winter.
Summer.

Red phalarope.
Winter.
Summer.

The red phalarope has a circumpolar breeding range and consequently a world-wide distribution. A trip out on a tuna-boat in September will almost surely place this bird on your list.

The northern phalarope, depicted in the background, is a common fall migrant throughout the province. It breeds across the Arctic, migrating down both sea-coasts of the continent and through the interior of this province. It is often found well out to sea, but usually in the colder waters east of the Japan Current. The winter range of the western hemisphere birds is imperfectly known, despite the vast numbers that pass by in migration. It is believed they winter somewhere south of the equator on the open sea.

These birds, like the red phalarope, have two distinct seasonal plumages. The female in spring is very dark grey about the head,

face, and back, and partially across the breast. There is a well-defined white throat patch, and the sides of the neck are brick red. The under-parts are white. Spring males are similar, but pattern and colours are less distinct.

In winter plumage the northern phalarope appears largely white, but has a striped grey and black back, a black cap, and a dark bar through the eye. These characteristics, coupled with typical whirligig behaviour, and the mere fact that it is swimming on the water, will serve to distinguish it from other shorebirds.

Northern phalaropes appear more regularly in the fall migration than in the spring along this coast. We see them in July some years, but August and September are the periods of heavy migration, when large numbers are often seen about the southern end of Vancouver Island.

REFERENCES

BENT, ARTHUR CLEVELAND.

1927. Life Histories of North American Shorebirds. Bull. 142, U.S. Nat. Mus.

1929. Life Histories of North American Shorebirds. Bull. 146, U.S. Nat. Mus.

MUNRO, J. A., AND COWAN, I. MCT.

1947. A Review of the Bird Fauna of British Columbia. Special Publ. No. 2, Prov. Mus., B.C.

PETERSON, ROGER TORY.

1941. A Field Guide to Western Birds. Riverside Press, Cambridge, Mass.

TAVERNER, P. A.

1934. Birds of Canada. Bull. 72, Nat. Mus. of Canada.

VICTORIA, B.C.
Printed by DON MCDIARMID, Printer to the Queen's Most Excellent Majesty
1955

1M-1254-3960

HANDBOOK SERIES

of the

BRITISH COLUMBIA PROVINCIAL MUSEUM
DEPARTMENT OF EDUCATION
VICTORIA, B.C.

No. 1. Fifty Edible Plants of British Columbia.
George A. Hardy. 25 cents.

No. 2. The Amphibians of British Columbia.
G. Clifford Carl. 50 cents.

No. 3. The Reptiles of British Columbia.
G. Clifford Carl. 50 cents.

No. 4. Some Mushrooms and other Fungi of British Columbia.
George A. Hardy. 25 cents.

No. 5. The Fresh-water Fishes of British Columbia.
G. Clifford Carl. 50 cents.

No. 6. The Birds of British Columbia: (1) The Woodpeckers; (2) The Crows and Their Allies.
C. J. Guiguet and Frank L. Beebe. 50 cents.

No. 7. The Barnacles of British Columbia.
I. E. Cornwall. 50 cents.

No. 8. The Birds of British Columbia: (3) The Shorebirds.
C. J. Guiguet and Frank L. Beebe. 50 cents.

Other publications of the Provincial Museum are:—

Annual Reports: Covering the activities of the Museum for each year.

Occasional Paper Series: Containing scientific papers in the fields of natural history and anthropology of the Province.

Anthropology in British Columbia Series: Reporting on activities in the field of anthropology for each year.

Special Publications: Containing material not included in the other series.

Copies of Museum publications may be obtained by applying to the Provincial Museum of Natural History and Anthropology, Victoria, B.C.